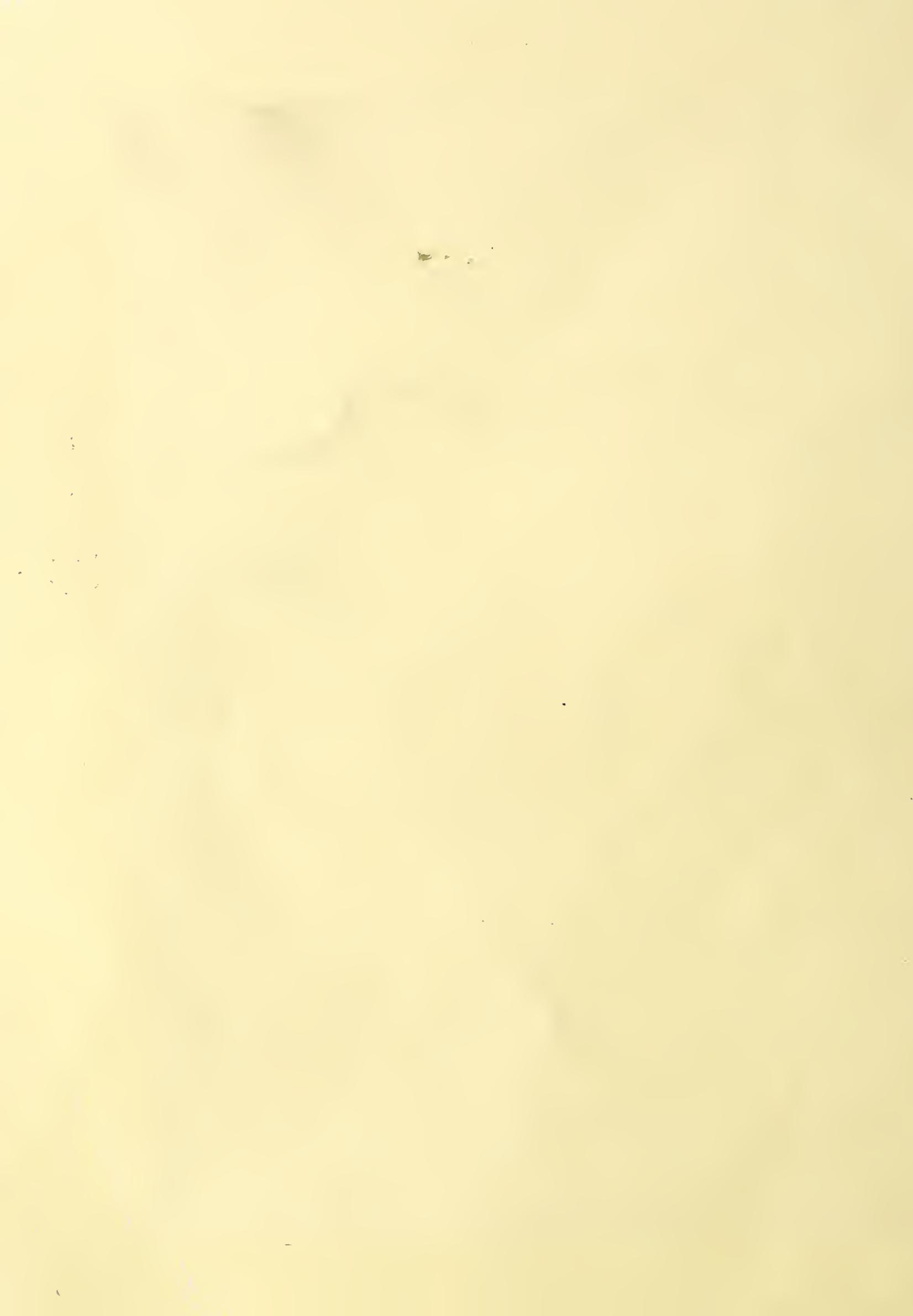


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UNITED STATES DEPARTMENT OF AGRICULTURE  
U. S. BUREAU OF HOME ECONOMICS  
WASHINGTON, D. C.

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COOKING IN STEAM PRESSURE COOKERS

Instructions for the use and care of a pressure canner or a pressure cooker should be obtained from the manufacturer, as different types and makes vary in certain details of construction. The market offers a variety of makes and sizes of pressure cookers which are used both as canners and as cookers; these have thick walls, a pressure gauge and a lid which clamps down securely. In addition there are pressure cookers of saucepan sizes, of light construction, which heat up and cool down more quickly.

Pressure cookers which have long heating up and cooling down times can be used to advantage only for foods which, under ordinary cooking conditions, require long, slow cooking, such as cereals, dried legumes, certain root vegetables, such as rutabagas and beets, and the less tender meats and poultry. If foods requiring a relatively short cooking time, such as root vegetables, are prepared in this type of pressure cooker, they should not be cooked along with foods that require longer cooking, such as meat or fowl. Overcooking results in poor flavor, color, and texture, and usually, also, in increased vitamin losses. Pressure cookers which heat up and cool down rapidly may be used satisfactorily for any foods which can be cooked in water or steam, including both green and strong-juiced vegetables.

There is at present no simple answer to the question of vitamin losses that may occur in pressure cooking. The use of higher temperatures obtained by steam pressure is generally supposed to cause greater destruction of vitamins than ordinary cooking methods. However, the extent of the vitamin destruction caused by pressure cooking depends in large part on the length of time this higher temperature is applied and on the length of time required for the pressure cooker to heat up and cool down. In fact, a very short period of pressure cooking in a size and type of pressure cooker that can be quickly heated up and cooled down may cause no greater destruction of vitamins than the longer cooking required by ordinary cooking methods.

Since some of the vitamins are soluble in water, part of the vitamin value of foods may be lost if cooking water, or the juices drawn out in cooking are discarded. This would be true in the case of ordinary cooking as well as of pressure cooking. Minerals are not destroyed by the heat of cooking but are found in solution in cooking liquid and in juices drawn out during cooking. For minerals as well as vitamins it is, then, important to use "pot liquor."

(over)

There is likely to be greater destruction of vitamins in cooking in pressure equipment than in canning in the same piece of equipment. Processing food in cans or jars with lids in place reduces the destruction of vitamins caused by oxidation, a chemical process that takes place in the presence of air and is speeded up by heat.

Directions for the canning of nonacid vegetables and meats in steam pressure canners are given in Farmers' Bulletin 1762, "Home canning of fruits, vegetables, and meats," which may be obtained from this bureau upon request.





